Level 3-mol-How does it relate to particles?

We are now aware of the fact that we can hold a mol of particles in our hand. Through calculation we can figure out how massive or not so massive these particles are. We can also look at the world around us and realize and mathematically figure out how many particles are in such things as a raindrop.

This portion of your contract requires calculation and showing **all** of your work.

Be sure to include **units** and **significant digits** throughout.

You are required to answer **all** of the questions below very neatly and legibly.

1. What is the mass in grams of 0.452 moles of glucose?
2. Calculate the mass in kilograms of 0.681 moles of ammonia gas.
3. How many molecules(formula units) are in 39.0 grams of iron(III)sulfide?
4. Determine the number of potassium ions in 3.05 mole of K+.
5. Calculate the mass in grams of 2.23 moles of nitrogen molecules.
6. How many atoms are in 6.4 grams of copper?
7. A raindrop contains about 0.05 grams of water.
   1. How many molecules of water are in a raindrop?
   2. How many atoms of hydrogen are in a raindrop?
   3. How many atoms of oxygen are in a raindrop?
   4. Suppose the human body is made up of approximately 60% water. How many molecules of water are **in your** body? How many atoms of hydrogen and oxygen in total are there **in your** body?

Due date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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